

AMHERST FIRE DEPARTMENT

Massachusetts

W. Tim Nelson, Fire Chief (413) 259-3082 FAX (413) 256-4087 P.O. Box 654 68 No. Pleasant Street Amherst, MA 01004-0654 fire@amherstma.gov www.amherstma.gov/fire Assistant Fire Chiefs Lindsay E. Stromgren Donald R. McKay

To: Planning Board

From: Assistant Chief McKay

RE: SUB2014-00001/M20141 - Preliminary Subdivision Plan for The Retreat

at Amherst LLC - Henry Street and Markert Hill Road

Application number: 20141

Date: 25 November 2013

Ms. Brestrup,

Preliminary plans for The Retreat engender the following Fire Department comments:

Fire department access throughout the project is adequate for fire engines, ladder trucks, and ambulances with the following notes: 1) Roadway culverts or bridges must be capable of supporting the weight of Department vehicles. Bridges must be constructed and maintained in accordance with AASHTO HB-17. 2) The ladder truck (L-1) and the ladder/pumper truck (E-2) cannot operate safely on grades greater than 6% when parked perpendicular to the uphill or downhill line of the grade (lateral stability) but can work safely on grades up to 14% when parked in-line with the uphill grade (longitudinal stability). 3) Perpendicular parking as indicated in the cul-de-sac detail may be problematic for the turning radius of the ladder truck. (see attached apparatus specification sheet)

Hydrant water supply: The required fire water flow for a single family house with less than 3,600 square feet of area is between 1000 – 1500 gallons per minute (GPM) but the close spacing of the cluster development may require greater fire water fire flow based on the proximity of the units. Recommended spacing of the fire hydrants by the International Fire Code (IFC), Appendix C would be no greater than 500 feet with a hydrant within 250 feet of every



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building. The IFC required hydrant spacing is one hydrant within 400 feet of each portion of any building.

Fire protection systems: Each structure will be required to have a household warning system consisting of smoke detectors and carbon monoxide detectors. It would be the recommendation of the Amherst Fire Department that, at a minimum, a domestic sprinkler system be installed in each dwelling unit. A sprinkler system is not required under either the building code or MGL 148 but clearly offers a significant upgrade in life safety systems in an occupancy populated principally by a student population. The installation of sprinkler systems would reduce the fire water flow requirements, allow an increase in the fire hydrant spacing to 600 feet, and would reduce the recommended National Fire Protection Agency (NFPA) exposure separation distances.

Sincerely

Donald R. McKay, Assistant Fire Chief

Donald R. Melby